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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,340	03/25/2004	Masato Ishihara	01-614	5442
23400	7590	06/15/2005	EXAMINER	
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			AURORA, REENA	
			ART UNIT	PAPER NUMBER
			2862	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No.	Applicant(s)	
	10/808,340	ISHIHARA ET AL.	
	Examiner	Art Unit	
	Reena Aurora	2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 5 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/25/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/25/04, 12/16/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims 1 – 5 are presented for examination.

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A magnetic sensor with symmetrically disposed magneto-resistive bridges.

Claim Objections

2. Claim 1 is objected to because of the following informalities: line 13, it appears that the phrase "direction of the electric field" is a typing mistake and it should be "direction of the bias magnetic field" as supported in the specification on page 6, last two lines - page 7, line 1. Appropriate correction is required.

For the purpose of examination, examiner is treating the phrase in claim 1, line 13 "direction of the electric field" as "direction of the bias magnetic field".

3. Claim 1 is objected to because of the following informalities: lines 3, 6, 7, 12, have no space between two words. Each word needs to be separated by a space from another word. Applicant is suggested to check all the claims for spacing between two words. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Uenoyama (6,366,079).

As to claim 1, Uenoyama discloses a magnetic sensor including a first magneto-resistive bridge (10, fig. 5A and 5B) constructed by a plurality of magneto-resistive elements (12a, 12b, 13a, 13b) for detecting variation of magnetic field (col. 2, lines 15 – 18 and col. 4, lines 39 - 43); and a second magneto-resistive bridge (11) constructed by a plurality of magneto-resistive elements (14a, 14b, 15a, 15b) for detecting variation of the magnetic field, wherein the first magneto-resistive bridge (10) and the second magneto-resistive bridge (11) are disposed to be symmetrical to each other with respect to a direction of the magnetic field (7), wherein the plurality of magneto-resistive bridge elements constituting the first magneto-resistive bridge are disposed to be symmetrical (col. 3, lines 49 - 53) with one another with respect to the direction of the magnetic field (7, fig. 2A and 5A), and wherein the plurality of magneto-resistive elements constituting the second magneto-resistive bridge (14a, 14b, 15a, 15b) are disposed to be symmetrical with one another with respect to the direction of the magnetic field (7).

As to claim 2, Uenoyama further discloses that the plurality of magneto-resistive elements (12a, 12b, 13a, 13b; 14a, 14b, 15a, 15b, fig. 5A) of the first (10) or second magneto-resistive bridge (11) are radially disposed (fig. 5A, col. 6, lines 52 - 65).

As to claim 3, Uenoyama further discloses that all of the plurality of magneto-resistive elements (12a, 12b, 13a, 13b; 14a, 14b, 15a, 15b, fig. 5A) of the first (10) and second (11) magneto-resistive bridge are disposed to have a fixed angle with respect to the direction of the magnetic field (7) (col. 3, line 65 – col. 4, line 19).

As to claim 4, Uenoyama further discloses that each of the first (10, fig. 5A) and second (11) magneto-resistive bridges comprises four radially disposed magneto-resistive elements (12a, 12b, 13a, 13b; 14a, 14b, 15a, 15b, fig. 5A), wherein two confronting magneto-resistive elements (12a, 12b and 13a, 13b) of the plurality of magneto-resistive elements are respectively set as a pair of magneto-resistive elements, and wherein a middle point potential ($V_{\text{sub a}}$) of each pair of magneto-resistive elements is set as an output of each magneto-resistive bridge (10, 11).

As to claim 5, Uenoyama further discloses that the pair of magneto-resistive elements ((12a, 12b and 13a, 13b) are disposed linearly (fig. 5A and 5B).

Prior Art of Record

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

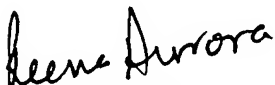
Pant et al. (5,247,278) is cited for its disclosure of a magnetic field sensing device.

Lenssen et al. (6,501,678) is cited for its disclosure of a sensing system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Reena Aurora
Examiner